

GATE Apprenticeship Program

Biotechnology Fall Session

All sessions take place on Fridays from 9:00 a.m. until Noon in Room 512 Academic Hall at Point Park University, 201 Wood Street & Boulevard of the Allies, Pittsburgh, PA 15222

The object of this apprenticeship program will be to introduce students to careers in biotechnology and expose them to types of research methods used in modern biotechnology laboratories. Students will learn about several major aspects of biotechnology and will conduct experiments. Method: The instructional methods chosen will all be conducted at Point Park University and will include lecture and discussion sessions along with hands on experimental procedures.

There is a \$30.00 lab fee due at the first session. Please make checks payable to Point Park University.

Date	Activities
9/18/2009	Overview of technology, careers, earning potential and educational opportunities.
10/2/2009	Proteomics/protein separation in basic research-topics of discussion will include the importance of our ability to measure and manipulate proteins in research. We will discuss many types of experiments and perform at least one of them. We plan on offering students the possibility of experimenting with techniques designed to quantitate or separate proteins, such as ELISA or HPLC.
10/23/2009	Genomics/genetic engineering -- topics of discussion will include our increasing knowledge of genes, genetic regulation, and other areas. We will plan on experimenting with the enzymatic digestion of DNA and visualization through gel electrophoresis.
11/13/2009	Vaccine development/drug discovery -- topics of discussion will include how vaccines work and how they are developed. We will expand the discussion to teach students about different paths to the discovery and development of new drugs. We plan on performing an experiment in which students can visualize how antibodies attach to and neutralize antigens to demonstrate how a vaccine works in the body.
12/4/2009	Conclusions and review session.

In Case Of An Absence

Please contact Sue Kennedy at the Allegheny Intermediate Unit
412-394-5818 or Susan.Kennedy@aiu3.net
if you are going to be absent from a session.